WHAT IS CLAIMED IS:

1. An apparatus for supplying fluid at a desired temperature to a desired location to cool a heat load, said apparatus comprising:

a hot reservoir containing fluid at a temperature above the temperature desired;

a cold reservoir containing fluid at a temperature below the temperature desired; and

a three-way control valve fluidly connected between the hot and cold reservoir, said control valve configured to deliver at least one of said hot reservoir fluid and said cold reservoir fluid to the desired location.

2. An apparatus in accordance with Claim 1 further comprising a heater and a chiller, said hot reservoir maintained at the hot reservoir's temperature by said heater and said cold reservoir maintained at the cold reservoir's temperature by said chiller.

3. An apparatus in accordance with Claim 1 configured to achieve a temperature control precision of ±0.1°F.

4. An apparatus in accordance with Claim 1 further comprising a flow control valve fluidly connected to the three-way control valve to control the flow rate of the fluid issuing from the three-way control valve.

5. A method of supplying fluid at a desired temperature, said method comprising:

maintaining a hot reservoir containing fluid at a temperature above the desired temperature;

maintaining a cold reservoir containing fluid at a temperature below the desired temperature; and

mixing fluid from the hot reservoir with fluid from the cold reservoir through use of a three-way valve to achieve a temperature control precision of ±0.1°F.

6. A method in accordance with Claim 5 further comprising controlling the flow from the three-way valve through use of a flow control valve fluidly connected to the three-way valve.

7. An apparatus for controlling temperature at a desired value at a heat load, said apparatus comprising:

a fluid connection to the heat load;

a heat exchanger in thermal contact with the fluid connection upstream of the heat load; and

a chiller fluidly connected to the heat exchanger for supplying chilled fluid to the heat exchanger.

8. An apparatus in accordance with Claim 7 further comprising a reservoir of chilled fluid fluidly connected to said chiller.

9. An apparatus in accordance with Claim 7 further comprising a two-way control valve fluidly connected to said heat exchanger such that the flow rate of fluid to said heat exchanger can be controlled.

10. An apparatus in accordance with Claim 9 further comprising a flow control valve in fluid connection with said heat exchanger, said flow control valve configured to achieve a temperature control precision of ±0.1°F.

11. A method of controlling temperature at a desired value at a heat load, said method comprising:

establishing a fluid connection to the heat load;

placing a heat exchanger in thermal contact with the fluid connection upstream of the heat load;

placing a chiller in fluid connection with the heat exchanger; and

supplying chilled fluid to the heat exchanger, whereby heat generated by the heat load is dissipated and a temperature control precision of ±0.1°F is achieved.

12. A method in accordance with Claim 11 further comprising fluidly connecting a reservoir to the chiller.

13. A method in accordance with Claim 11 further comprising placing a two-way control valve in fluid connection with the heat exchanger.

14. A method in accordance with Claim 11 further comprising placing a flow control valve in fluid connection with the heat exchanger.

15. An apparatus for supplying fluid at a desired temperature, said apparatus comprising:

a hot reservoir containing fluid at a temperature above the desired temperature;

a cold reservoir containing fluid at a temperature below the desired temperature;

a first two-way control valve fluidly connected to said hot reservoir;

a second two-way control valve fluidly connected to said cold reservoir; and

a junction fluidly connected to said first two-way control valve and to said second two-way control valve, said junction downstream of said first two-way control valve and said second two-way control valve such that fluid issuing from said hot reservoir mixes with fluid issuing from said cold reservoir.

16. An apparatus in accordance with Claim 15 further comprising a heater to heat the fluid in said hot reservoir and a chiller to chill the fluid in said cold reservoir.

17. An apparatus in accordance with Claim 15 wherein said apparatus configured to achieve a temperature control precision of ±0.1°F

18. An apparatus in accordance with Claim 15 further comprising a flow control valve downstream of said junction.

19. A method of supplying fluid at a desired temperature, said method comprising:

fluidly connecting a hot reservoir containing fluid at a temperature above that desired to a first two-way control valve;

fluidly connecting a cold reservoir containing fluid at a temperature below that desired to a second two-way control valve; and

fluidly connecting a junction to the first two-way control valve and to the second two-way control valve, the junction connected downstream of the first two-way control valve and the second two-way control valve such that fluid issuing from the hot reservoir mixes with fluid issuing from the cold reservoir to achieve a temperature control precision of ±0.1°F.

20. A method in accordance with Claim 19 further comprising a heater to heat the fluid in the hot reservoir.

21. The method of Claim 19 further comprising a chiller to chill the fluid in the cold reservoir.

22. The method of Claim 19 further comprising a flow control valve downstream of the junction.

23. An apparatus for supplying fluid at a desired temperature, said apparatus comprising:

a cold reservoir containing fluid at a temperature below the desired temperature;

a fluid conduit fluidly connected to the cold reservoir; and

a heated bypass loop comprising a heater and a two-way control valve, said loop fluidly connected to the fluid conduit such that a portion of fluid from said fluid conduit is diverted through said heated bypass loop and then returned to said fluid conduit.

24. An apparatus in accordance with Claim 23 further comprising a chiller to chill the fluid in said cold reservoir and a temperature controller to control said heater.

25. An apparatus in accordance with Claim 23 wherein said apparatus configured to achieve a temperature control precision of ±0.1°F.

26. An apparatus in accordance with Claim 23 wherein said fluid conduit comprises a flow control valve to control the flow rate in said fluid conduit.

27. A method of supplying fluid at a desired temperature, said method comprising:

passing a fluid from a cold reservoir containing fluid at a temperature below the desired temperature through a fluid conduit;

passing at least a portion of the fluid in the fluid conduit through a heated bypass loop which includes a heater and a two-way control valve;

heating the fluid in the heated bypass loop; and

mixing fluid from the heated bypass loop with fluid from the cold reservoir to achieve the desired temperature with a temperature control precision of ±0.1°F.

28. A method in accordance with Claim 27 further comprising a chiller to chill the fluid in the cold reservoir.

29. A method in accordance with Claim 27 wherein the heater comprises a programmable temperature controller.

30. A method in accordance with Claim 27 wherein the fluid conduit includes a flow control valve.

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